

AMENDED CLAIMS

[received by the International Bureau on 02 May 2005 (02.05.2005);
Claims 3 is amend , claims 1,2 and 6 are canceled, claims 4,5,7 to 10
remain unchanged.]

What is claimed is;

1. (Canceled)

5 2. (Canceled)

3. (Amended) An apparatus for manufacturing a semi-solid
metal slurry having a uniform spherical structure, comprising:

10 a furnace formed of a refractory material and having a
housing formed at an upper portion thereof such that molten
metal is fed into and discharged from the housing;

an electromagnetic agitator for generating an
electromagnetic field through application of electricity to an
outside of the furnace;

15 a cooler for performing rapid cooling of the molten
metal discharged from the furnace;

a guide member positioned at an angle such that cooled
slurry is guided along the guide member to a supporting frame
equipped below the cooler; and

20 a storing part equipped below the guide member for
uniformly storing the slurry dropped along the guide member;

wherein the cooler comprises a space defined between an
inner wall and an outer wall of the cooler such that a path is
formed through the center of the cooler, and a supplying pipe
25 formed at one side of the outer wall so as to be communicated

with the space, the inner wall being formed with a plurality of injection holes communicated with the space.

4. The apparatus as set forth in claim 3, further comprising:

a temperature controller provided in the furnace for controlling an internal temperature of the molten metal according to a temperature of the molten metal fed into the furnace and an atmospheric temperature in the furnace

5. The apparatus as set forth in claim 4, wherein the temperature controller comprises a temperature sensor, and a heating member for generating heat according to a signal from the temperature sensor.

6. (Canceled)

7. The apparatus as set forth in claim 3, wherein the electromagnetic agitator is equipped to surround the outside of the furnace and the cooler.

8. The apparatus as set forth in claim 3, wherein the storing part comprises a slurry-storing container for containing the slurry dropped thereto, and a circulating member for circulating the slurry so that the slurry is

uniformly stored within the slurry-storing container.

9. The apparatus as set forth in claim 8, wherein the circulating member circulates the slurry-storing container in a predetermined locus by means of an input program.

10. The apparatus as set forth in claim 8, wherein the slurry-storing container is formed of a ceramic material having a low thermal conductivity.

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